



Soldier's / Leader's Handbooks

Ft. Richardson, AK Soldier's Handbook



Introduction

Part of the Army's mission is to maintain the environment and restore any negative impacts at its training facilities. To uphold this mission, it is essential to promote EA and compliance with federal laws among Army personnel. Environmental issues, however, vary among training installations, depending upon the local environment and tactical maneuvers conducted at each installation. This handbook identifies and addresses specific environmental issues related to tactical training maneuvers at Fort Richardson, Alaska.

Fort Richardson's Mission

Fort Richardson provides almost 100,000 acres of land for military training. There are opportunities for intense training in desert, mountainous, arctic, etc conditions, as well. This seeming endless availability of land, however, cannot obscure the need for environmental protection. Constant usage can exhaust the terrain and render it ineffective for training. Authentic combat conditions must prevail if short- and long-term military training goals are to be achieved. Thus, environmental stewardship is of paramount importance to the Army's mission at Fort Richardson and assumes a preeminent role in preserving military lands for future military exercises. This soldier's handbook will identify and examine various environmental issues associated with military training operations and discuss ways to address and mitigate the impact of training operations on Army lands.

Installation Description

Fort Richardson encompasses 60,000 acres of land in south central Alaska, where it is situated between the communities of Eagle River, Birchwood, and Chugiak on the north and Anchorage on the south. As city populations expand, Fort Richardson's land becomes increasingly valuable to the public for recreation.

There is a broad diversity of topographic, geologic, and climatic environments at Fort Richardson. The topography ranges from the tidal flats of Knik Arm, to flat coastal lowlands and forests, to the alpine tundra and peaks of the Chugach Mountains. Within a distance of less than 16 kilometers, the elevation rises from sea level to over 1524 meters.

Several important waterways originate in the Chugach Mountains and flow across Fort Richardson to Knik Arm. The largest river on the installation is Eagle River, which is the only one fed by glacial run-off. Although it originates off the post, the river flows through the middle of Fort Richardson and forms a canyon, a floodplain, and a large estuarine salt marsh at its mouth (Eagle River Flats). Ship Creek, parts of Snowhawk Creek, and the North Fork of Campbell Creek from large, deep valleys in the Chugach Mountain portions of Fort Richardson. Rising above these valleys are important mountain peaks, including Site Summit (1190 meters), Tanaina Peak, and Temptation Peak (1615 meters). Treeline occurs at an elevation of about 750 meters along the Chugach slopes. Lakes, bogs, and smaller kettles are abundant in the forested, coastal lowlands; the larger lakes being Clunie and Otter. Snowhawk Lake is a glacial tarn in the mountains at the head of Snowhawk Creek.

Fort Richardson's land was withdrawn from the public domain in support of the Army's mission. While military training is the dominant use of these lands, the Army is required to manage the land for multiple use as long as the military mission is not compromised. Multiple use activities and opportunities at Fort Richardson include hunting, fishing, trapping, kayaking, rafting, canoeing, hiking, mountain climbing, downhill and cross-country skiing, off-road vehicle use, marathons, dog mushing, biking, golfing, berry picking, viewing wildlife, scouting, dog trails, and a back country trail and hut system. The Army is also mandated to protect sensitive and fragile areas such as wetlands and alpine tundra that occur on Fort Richardson. In addition, the post is home to hundreds of wildlife species, including a population of 600 moose, which must be managed and protected. It is, therefore, imperative that Army personnel at Fort Richardson be good land stewards for the American people.

Maneuver Damage

If the mission of Fort Richardson is to be fulfilled, then realistic training conditions are required. Careless use of training areas can result in damages to the terrain thus decreasing training realism and undermining the training mission. Damage from training maneuvers can cause loss of acreage for training, safety hazards, decreased tactical maneuverability, increased maintenance costs, and loss of vegetation. As a result, quality terrain for training is lost. Natural camouflage is destroyed, and controversy is generated between the Army and the general public. Unnecessary maneuver damage must be avoided and damage that does occur must be repaired.

Potential Impacts from Tactical Maneuvers

- Diminished quality, and quantity of realistic training
- Fewer Areas available to the U.S. Army
- Diminished operational security and decreased tactical maneuverability
- Safety hazards and accidents caused by carelessness

- Increased training area maintenance costs and litigation.

Prevention of Maneuver Damage

Your decisions will determine whether the military's lands can be maintained for future generations. Once the training land is damaged, it is extremely difficult and expensive to replace or repair. The key to preventing maneuver damage is understanding how your decisions and actions affect the environment. Often, training for combat on the modern battlefield cannot be conducted without damage, but trainers are expected to consider the impact of events, modify plans to avoid damage that violates Army policy, and ensure the repair of unavoidable, scenario-driven damage. Training plans should include locations of known sensitive areas and plans for repairing maneuver damage.

When Maneuver Damage Occurs

Units will report maneuver damage to Range Control, which will determine the cause of the damage. If the damage is a result of unavoidable, scenario-driven maneuvers, the units will not be held liable for maneuver damage repairs. If Range Control determines that the damage was unnecessary and negligent, the Environmental Resources Department (ERD) will conduct a damage assessment and offending units may be charged for maneuver damage repair. ERD will provide technical guidance on cleaning up hazardous materials and rehabilitation of damaged lands.

The procedures following will help minimize destruction and ensure continued simulation of combat situations at Fort Richardson.

Field Operations

Litter

Carefully police training site to ensure it is free of litter and waste. If you find litter that is not yours, pick it up anyway. In actual combat situations, poor policing practices can give away your unit's location and other tactical information. All cartridges, tubes, containers, packing material, and all other material introduced into the environment in conjunction with maneuver activities will be removed to the maximum practical extent.

Procedures to Reduce Maneuver Damage

- Police all training areas before, during, and after use.
- Remove all barbed, commo, concertina, and trip wire immediately after training exercises to protect personnel and wildlife from accidents.

Waste Disposal

All vehicles are required to have a supply of plastic garbage bags to use for garbage collection. Instruct personnel to transport trash to an appropriate dumpster, transfer station, or recycling center. Do NOT send household cleaners, hazardous materials, explosives, dangerous hazards such as wire, antifreeze, paint, refrigerators, medical surgical wastes to recycle at the transfer station.

Procedures to Reduce Maneuver Damage

- Never burn or bury trash in the field.
- Where available, use permanent latrines for human waste. Where permanent latrines are not available, personnel shall use the portable latrines provided or bag waste and deposit at dump station.

Camouflage

DO NOT use live vegetation for camouflage. This will delete the area's vegetation and diminish sources of natural cover for future training. Furthermore, once live vegetation is cut it wilts quickly and does not conceal your position. If training objectives cannot be achieved by using camouflage netting, then you may cut trees with a diameter of 4 inches or less. Approval must be sought BEFORE trees of any size can be cut down.

Procedures to Reduce Maneuver Damage

- Make use of camouflage netting, as it is specifically designed to hide the sharp lines of vehicles, tents, and other military structures.
- Do not cut branches from live trees; instead use only saplings that are less than 4 inches in diameter.
- Take down overhead cover after use and scatter it over the terrain.
- String communications wire, power lines and auxiliary cables along the edges of open areas or trails, and run the wire, lines or cables along the ground when feasible and compatible with training objectives. When it is necessary to suspend wire above the ground, care should be taken not to break trees, branches, stems, etc. The use of nails and wire loops should be minimized.

Fire

Do not burn anything without first submitting a detailed request to and obtaining clearance from Range Control. Open fires are prohibited except in emergencies or as part of approved training exercise. Units desiring to build fires should submit a request to burn to Range Control. The request to burn must include materials to be burned, quantity, length of burning, etc. Fires are prohibited from June to October when fire danger is high. The use of pyrotechnics, smoke pots, and grenades maybe restricted when fire danger is high. In high fire danger periods, smoke grenades and star cluster flares will be used only for emergency operations.

- Vehicles should remain on marked trails and designated routes, except when directed otherwise during tactical deployment. Drive on established roads during administrative time.
- Avoid neutral steer turns. These turns will rip up all the vegetation, and it will take the terrain several years to recover.
- In training areas, heavy artillery and armored tracked vehicles must stay at least 10-meters away from the base of trees; all other vehicles must stay 5 meters away. This avoids compacting the soil and causing soil erosion. Soil compaction will eventually kill the trees.
- Do not drive directly up steep hills.

- Wash vehicles only at designated awash racks. Washing vehicles in any open body of water is prohibited.

Hazardous Materials

Fort Richardson conducts "Cradle to Grave" management of hazardous materials. It is crucial that units maintain accurate records on anything that transpires over the "lifetime" of any hazardous material created on base. These records must be accurate and up-to-date; in the past, the Army has been cited for insufficient paperwork on hazardous materials.

Sometimes used oil is unsafe, as it may have absorbed hazardous materials. If you generate used oil, consult with the Department of Public Works Environmental Resources Department (ERD) to determine the oil's status. Always turn in unused oil, waste oil, and fog oil (see USARAK Regulation 200-4) for recycling. Also, turn in empty drums and other hazardous wastes, such as old batteries, solvent, and paints. All disposal actions will be coordinated with the DPW.

- Spills - Alaska law defines a "spill" as any leakage or discharge of a hazardous materials or substance. Immediately report petroleum, oil and lubricants POL spills to the Fire Department or Range Control. Know and report the size, location and type of the POL spill. Take immediate action to control, contain, and clean up the spill according to the installation Spill-Contingency Plan. Failure to report spills immediately may result in prosecution.
- Petroleum, Oil, and Lubricants (POL) - Petroleum, oils, and lubricants distribution points and refueling operations shall be set up and operated per USARAK Regulation 200-1. Drip pans must be used at all dispensing points. All units shall have available spill kits consisting of at least a shovel, absorbent material (dry sweep), plastic bags, and drip pans. Improper handling of POL products constitutes gross negligence punishable by fine or imprisonment.
- Previously Contaminated Sites - Troops may encounter remnants of hazardous materials in the field (e.g., fuel soaked soil, asbestos contaminated structures, abandoned drums). Call the ERD to report the hazards and leave the site or object alone. DO NOT make any attempts to investigate the contaminated area further.
- Mixing Chemicals - Hazardous products should NEVER be mixed together, not even for the purpose of disposal. Only authorized, qualified personnel should ever combine hazardous products.
- Labeling - All hazardous wastes must be clearly labeled as such.
- Storing Contaminated Waste - Check with the ERD before storing any hazardous waste. There are many state and federal restrictions regarding "Where," "how much", and "how long" hazardous materials can be stored. Refer to USARAK Regulation 420-4 for specific regulations.

Procedures to Reduce Impacts

- Always use drip pans at all dispensing points.
- Always have available a spill kit consisting of at least a shovel, absorbent material

- (dry sweep), plastic bags and drip pans.
- Know the Emergency Spill Response Actions:
 1. Ensure safety of all personnel where spill occurred.
 2. Extinguish all flames.
 3. Shut off electricity where the disconnect spark is not a hazard.
 4. Eliminate ignition sources.
 5. Close valves or take other action to arrest the flow.
 6. Contain the spill with booms, sorbents, snow, dirt or other material.
 7. The supervisor or person in charge will report the spill to the Fire Department or Range Operations. Know and report the size, location, and type of spill.
 8. Start cleanup operations.
 - Clearly label all pertinent containers, storage pipes, and drip pans: "USED OIL" Non-hazardous oil can be disposed of in the landfill.
 - Never store incompatible hazardous materials together. For example, flammables (e.g., alcohol, ether acetone) and corrosives (substances which dissolve or burn) should NOT be stored together.

Wildlife

Harassment of fish or wildlife is prohibited. Any action that disturbs fish or wildlife is considered harassment by Federal and Alaska State laws. Harassment includes such things as pursuit with vehicles or aircraft and/or shooting of wildlife. Individuals who harass fish or wildlife are subject to prosecution. During periods of significant fish and wildlife use, impact and training areas may be temporarily closed to artillery fire and aerial bombardment.

Procedures to Reduce Impacts

- Immediately report any injured animals to Range Operations so that they can notify the Fish and Wildlife Service.
- Any wildlife encountered during live-fire exercises must be reported to Range Operations immediately. All activity must be suspended until the animals leave the area; troops may try to encourage the animals to disperse by making loud noises (e.g., honking vehicle horns, banging trashcans, etc.)
- DO NOT fire blank ammunition or throw ANYTHING at the animals to try to make them flee.
- Contact Range Control if assistance with wildlife is needed.

Wetlands

Wetlands sustain a variety of plant and animal life and they help insulate wildlife species from both natural and manmade hazards. Thus, wetlands are of critical importance to ecological health and require the utmost care in order to preserve them. Troop activity in and around these fragile areas is strictly regulated and often requires a permit.

The following are a few examples of activities for which you need a permit.

- Depositing soil or other materials into wetlands
- Extracting water from wetlands
- Projects taking place in or near wetland areas

Noise

Noise is also a training impact that must be minimized. Firing demolition, artillery, or mortars between 2200 to 0600 is prohibited. In addition, any training activity that generates noise (firing blanks, pyrotechnics, simulators, etc.) in areas adjacent to populated areas, firing is also prohibited between 2200 and 0600.

Off-Limits Areas

Movement into OFF-LIMITS areas is strictly prohibited. Personnel found in violation of OFF-LIMITS areas are subject to disciplinary action. All areas within one-half mile of the installation boundaries are closed to training activities to buffer adjacent, nonmilitary lands from military activities. The one-half mile restriction does not apply to the close in training areas. Exceptions also include all access routes and those areas specifically approved for use by Range Control. Improved recreational areas are closed to training unless otherwise approved by ERD.

Cultural Resources

Procedures to Reduce Maneuver Damage

Immediately report all fires to Range Control or the Fire Department. Know and report the grid location, nature, and size of the fire. Units are to stop training and assist firefighters except when the fire is in an impact area.

- Always burn excess powder charges in burn pan.
- Use only fallen trees/shrubs for firewood. They contain less moisture than live vegetation and thus burn more easily.

Excavation

Foxholes, trench systems, tank traps, hull-down positions, explosive excavations, etc., must be refilled and leveled before redeployment. All wire, rope and string must be removed and disposed of properly. If historical artifacts are discovered while digging, halt excavation at once and contact appropriate office (phone number).

Procedures to Reduce Maneuver Damage

- Stockpile the topsoil separately when excavating.
- Always refill and smooth-over foxholes and trenches after exercises are completed.
- Always disassemble and scatter all overhead cover.

Snow Removal

Exercise caution when using bulldozers and graders to plow snow for winter trails, bivouacs, temporary landing zones for helicopters, etc. Do NOT allow the bulldozer's blade to penetrate the vegetative mat or soil beneath the snow pack. If you do, you might roll up the vegetative mat and soil into berms, which is very disruptive and results in having to level the berms and reseed the disturbed areas in summer. Also, do not disrupt large areas of woody vegetation such as willows and birch saplings. These woody plants

provide the winter food supply for moose.

Vehicle Movement

Tracked vehicles and heavy trucks can cause significant damage to roads, bridges and culverts. Careless operation of vehicles also damages road shoulders and draining ditches. Virtually all off-road traffic leads to some form of erosion, causing both operational hazards and environmental damage.

On-Road Vehicle Movement

Unless otherwise posted, the speed limit on Fort Richardson is 25 miles per hour, whether on paved or dirt roads. When troops are present on foot, the speed limit is 10 miles per hour.

Procedures to Reduce Maneuver Damage

- Observe all speed limits, excessive speeds damage roadways. Many roads are already severely damaged with potholes, necessitating speeds under the designated limits.
- Stay away from the edges of roads. Driving on the edges will cause the edges to break and crumble. This can allow the road to wash out when it rains and cause further erosion problems.

Off-Road Vehicle Movement

Cross-country vehicular travel in vehicles with low ground pressure, such as Small Unit Support Vehicles (SUSVs), is not restricted during the winter months when the ground is frozen and the vegetative mat is protected by the snowpack. During the summer months (usually May through September), however, cross-country movement is not permitted in designated creek and river bottoms, wetlands, and alpine areas above 600 meters elevation. A list of areas closed during the summer months is maintained by Range Control. During ice breakup (usually 1 April - 15 May) travel is confined to designated roads and trails. Lightweight wheeled vehicles (e.g., pickup trucks weighing no more than 5/4 ton) are allowed to traverse streams at established crossings at any time. In winter, all vehicles may cross streams at designated sites.

Procedures to Reduce Maneuver Damage

Identified historical and archaeological sites must be left undisturbed. Any historical or archaeological discoveries made as a result of any military activities should also be left undisturbed and must be reported immediately to ERD.

Public Access

Per Public Law 87-327 and AR 200-3, USARAK-controlled lands are open to civilians and off-duty military personnel for outdoor recreation such as hunting, fishing, trapping, berry picking, hiking, and nature photography. Units may encounter these people during training. If the presence of civilians interferes with training activities, however, units will contact Range Control to have the civilians removed.

Information and Assistance

Range Control and ERD will assist and advise trainers at any stage of planning as to the possible impact of exercise scenarios. Trainers must use this resource early in their planning cycles to provide for protection of known sensitive areas and to reduce possible maneuver damage to those areas within the training complex.

Activities that require environmental assistance and coordination include the following: ground-disturbing activities, such as bulldozer work where soil and vegetation are displaced; disturbance of vegetation in wetlands; construction of new trails; opening new borrow areas; etc., will be coordinated with ERD before taking any action.

Activities that will impact waterways or result in discharge of materials into waterways will be coordinated with ERD before taking any action.

Units will coordinate with ERD for using trees of more than 4 inches in diameter for construction or demolition purposes.

Summary

Damage to the environment leaves your unit's combat signature. Consideration of environmental factors during training will reduce damage. Less damage means your unit leaves a less evident combat signature and, therefore, conducts a more successful mission.

The information and guidelines in this handbook will help you prevent maneuver damage. It is essential to communicate these preventative measures to all personnel participating in maneuvers at Fort Richardson.